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FILE
INSTRUCTION FILE

OPERATING INSTRUCTIONS

for

Type 1205-A Unit Power Supply

Type 1206-A Unit Amplifier

Type 1207-A Unit Oscillator

Form 693-B

GENERAL RADIO COMPANY

CAMBRIDGE 39 MASSACHUSETTS

NEW YORK CHICAGO LOS ANGELES

U. S. A.

OPERATING INSTRUCTIONS

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Type 1205-A Unit Power Supply

Type 1206-A Unit Amplifier

Type 1207-A Unit Oscillator

INTRODUCTION

These unit instruments have been designed as flexible laboratory components to be assembled in combination as required for a particular application. The circuits have been kept simple and the instruments compact without sacrificing wide range and general utility.

TYPE 1205-A UNIT POWER SUPPLY

GENERAL

This power supply has been designed primarily for use with the Type 1206-A Unit Amplifier and the Type 1207-A Unit Oscillator, but can also be used separately as a general-purpose source of heater and plate power.

OPERATION

Connect the power supply to the Type 1206-A Unit Amplifier or the Type 1207-A Unit Oscillator by means of the multipoint connectors on the ends of the instruments. No cables are necessary. If the power supply is used with other equipment see Figure 1 below for connections to connecting plug.

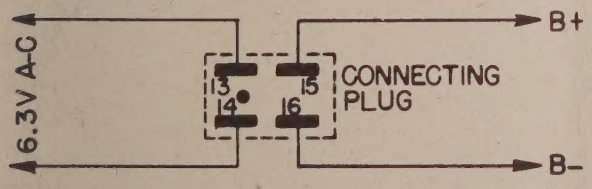


Figure 1.

Connect the power supply to the a-c line of proper voltage (115 or 230 volts). The power transformer connections can be arranged for either voltage (see wiring diagram). The nameplate and fuses should also be changed accordingly.

An OFF-ON switch provides the only control but the panel meter indicates the current output from the high d-c voltage supply. Detailed specifications follow:

SPECIFICATIONS

Output Voltage: 6.3 volts, ac, at 2.5 amperes, maximum. About 300 volts, dc, at 50 milliamperes maximum. No-load voltage is about 390 volts.

Hum Level: 0.8 volt at 300 volts and 50 milliamperes for 60 cycle line.

Input Power Supply: 115 (or 230) volts, 50 to 60 cycles.

Input Power: Approximately 12 watts, no load; approximately 50 watts, full load.

Rectifier Tube: One 6X5-GT/G which is supplied.

Output Terminals: A standard multipoint connector is arranged for plugging directly into either the Type 1206-A Unit Amplifier or the Type 1207-A Unit Oscillator. A connecting plug is provided for use with other equipment, and a line connector cord is supplied.

Dimensions: (Width) 5-5/8 x (height) 5-7/8 x (depth) 5-7/8 inches over-all. Net Weight: 6-3/4 pounds.

TYPE 1206-A UNIT AMPLIFIER

GENERAL

This amplifier has a voltage gain sufficient for use in the detector circuit of impedance bridges. The maximum power output is adequate for driving many low-power laboratory devices in both the audio and supersonic frequency ranges.

The circuit contains two triode voltage-amplifier stages and an impedance-coupled output stage. Cathode degeneration is employed on the input stage, and additional degeneration is included between the second amplifier and the output tube.

OPERATION

Filament and plate power for the amplifier is obtained from the Type 1205-A Unit Power Supply (see instructions above) or by connecting some other external power source to the connecting jack as shown in the Figure 2 below.

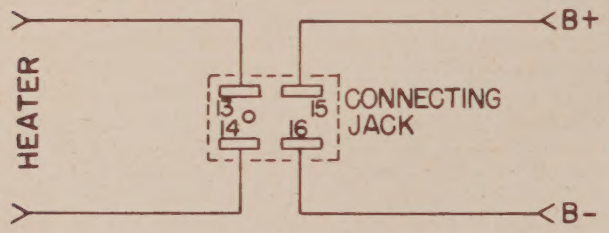


Figure 2.

The amplifier INPUT and OUTPUT terminals are clearly marked on the panel. Gain is controlled by means of a 200,000-ohm volume control (in series with a blocking capacitor) across the input. Detailed specifications follow:

SPECIFICATIONS

Voltage Gain: Continuously adjustable from 0 to 45 decibels.

Load Impedance: 7500 ohms optimum. Blocking capacitor is 1 μf.

Maximum Output: 3 watts into 7500 ohms can be obtained with less than 5% distortion.

Input Impedance: The input resistance is 200,000 ohms. Blocking capacitor is 0.05 μf.

Frequency Response: Essentially constant from 100 cycles to 100 kc. Response drops 6 db per octave above 200 kc. Response at 20 c. is down 6 db.

Distortion: The distortion when delivering 1 watt into a load of 7500 ohms is less than 2% at frequencies above 100 cycles. At lower frequencies the distortion increases, but is less than 3% at 50 cycles. At an output of 3 watts, total distortion is under 5% above 100 cycles.

A-C Hum: The 60-cycle hum level in the output is about 125 millivolts.

Power Supply: The Type 1205-A Unit Power Supply plugs directly into the amplifier. The power requirements are 6.3 volts 1.05 amp. a-c or d-c and 300 volts 50 ma d-c.

Tubes: One 6SN7-GT and one 6V6-GT are supplied.

Terminals: Jack-top binding posts on 3/4-inch spacing.

Dimensions: (Width) 10-1/4 x (height) 5-7/8 x (depth) 6-1/2 inches over-all. Net Weight: 8-3/4 pounds.

Manufactured and sold under license agreements covering Patents of the American Telephone and Telegraph Company.

TYPE 1207-A UNIT OSCILLATOR

The Type 1207-A Unit Oscillator is well adapted to many applications because its design is simple. Basically, it consists of a Type 6C4 triode with tuning, biasing, by-passing, and output-control circuits properly arranged to permit the use of plug-in coils over a 400-cycle to 80-megacycle range.

1.0 INSTALLATION

1.1 GENERAL

Before operation, the oscillator must be provided with a power-supply and a plug-in coil as described below.

1.2 POWER SUPPLY

A multi-point plug connector is mounted on the left side of the unit oscillator. It can be plugged directly into a Type 1205-A Unit Power Supply which is designed to meet the power requirements of the unit oscillator. If a supply other than the Type 1205-A Unit Power Supply is to be used, connect to the multi-point jack connector supplied with the unit oscillator so that the oscillator and power supply may easily be disconnected. The proper connections are indicated in Figure 3. The power supply (which may consist of batteries) must be capable of supplying 300 volts dc at 20 ma and 6.3 volts ac or dc at 0.15 a.

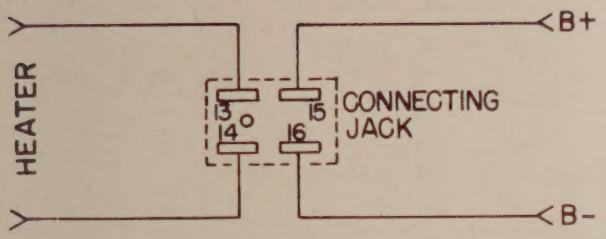


Figure 3.

1.3 OSCILLATOR COIL

An oscillator coil must be plugged into the group of seven jacks adjacent to the vacuum tube.

Ten oscillator coils, arranged for Hartley oscillator circuit operation, are available and are listed in Table I. A coil form complete with pin plugs and a cover is provided with the unit oscillator and may be wound to meet special applications. The winding data and other circuit information listed in Table I may be useful in determining the corresponding data for a special coil. Note that a pick-up coil must be included if it is intended that the output be available at the output terminals. Correct connections to the coil-form terminals for the Hartley circuit are as shown in Figure 4.

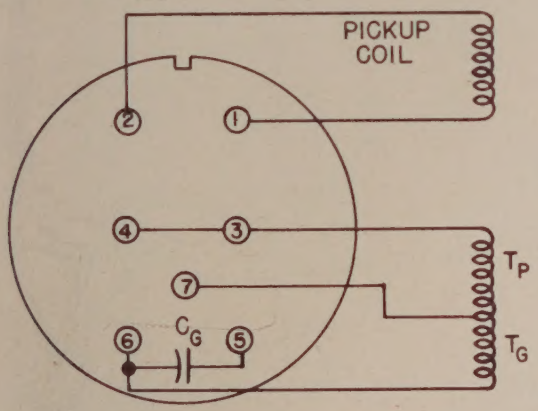


Figure 4. Coil Connections (Top View)

The fixed-frequency coils (1207-P1, -P2, and -P3) are wound on Molybdenum-Permalloy dust cores. The 40-80 Mc coil (1207-P10) is wound self-supporting with heavy wire. All the other coils (1207-P4 through 1207-P9) are wound on a 1-1/4 inch diameter coil form. The Type 1207-P4 and Type 1207-P5 coils are multi-layer (Universal-type of winding), and the Types 1207-P6, P7, P8 and P9 are single-layer wound.

1.4 EXTERNAL CONNECTIONS

A tuning capacitor (270 $\mu\mu$f) is built into the unit oscillator. Additional tuning capacitance or inductance may be connected across the oscillator tuned circuit at the EXT L-C jack terminals at the rear of the instrument.

The jack terminals labeled MOD, also at the rear of the instrument, must normally be short-circuited by the insertion of the Type 274-SB Short-Circuit Plug supplied with the instrument. If it is desired to modulate the oscillator, the modulator rather than the short-circuit plug must be connected at the MOD jack terminals. The modulator must then provide a d-c path for the oscillator plate current. This is readily accomplished by the use of a modulating transformer.

2.0 OPERATION

2.1 GENERAL

When the power supply, oscillator coil, and external connections have been installed as outlined in the previous section (1.0), the equipment is ready to operate. The power is turned on at the power supply. The plate current, as indicated on the panel meter of the power supply, should be less than 18 ma. The grid current, as indicated on the panel meter of the oscillator, will ordinarily be less than one milliampere. At high frequencies, it may be too low to indicate on the panel meter. The output, appearing at the panel terminals, is controlled by means of a panel OUTPUT knob. When this knob is in the full clockwise position, the output impedance is about 750 ohms when using the 1207-P1, P2 or P3 tuning units and is about 75 ohms when using the other oscillator coils listed in Table I.

2.2 FREQUENCY CALIBRATION

When using the Type 1207-P1, P2 or P3 Tuning Units, the frequency indicated on the tuning unit (400 cycles, 1000 cycles, and 20,000 cycles) is obtained if the tuning dial on the panel of the unit oscillator is set to 100.

When using the other oscillator coils listed in Table I, the approximate frequency calibration as a function of dial setting is as shown in the accompanying curves. Since the load is coupled to the oscillator coil, variations in load will affect the frequency somewhat, particularly at the high-frequency end of each coil.

2.3 MODULATION

The oscillator may be amplitude modulated by introducing an audio-frequency voltage in series with the plate supply at the jack terminals labeled MOD (at the rear of the unit oscillator).

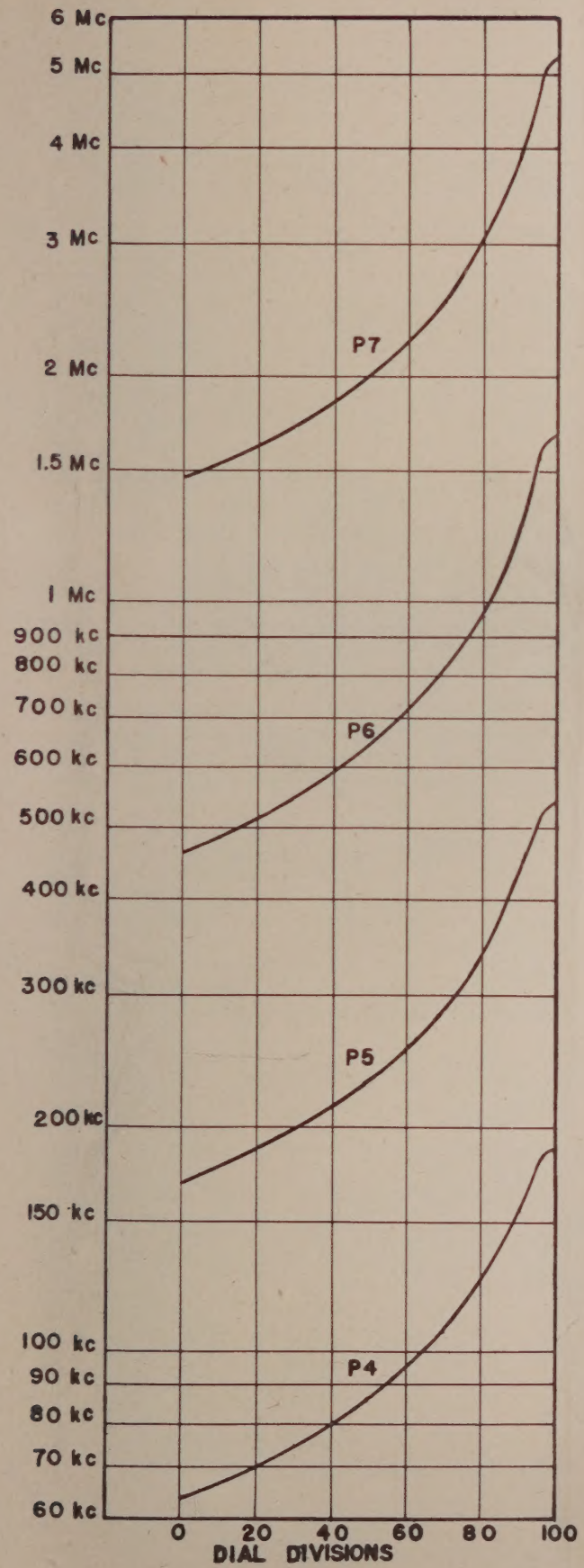
When the Type 1207-P6, P7, or P8 Coils (0.5 - 15 Mc) are used, the oscillator can be modulated up to 50% modulation and up to 10 kc modulating frequency. About 115 volts are required to obtain 50% mod-

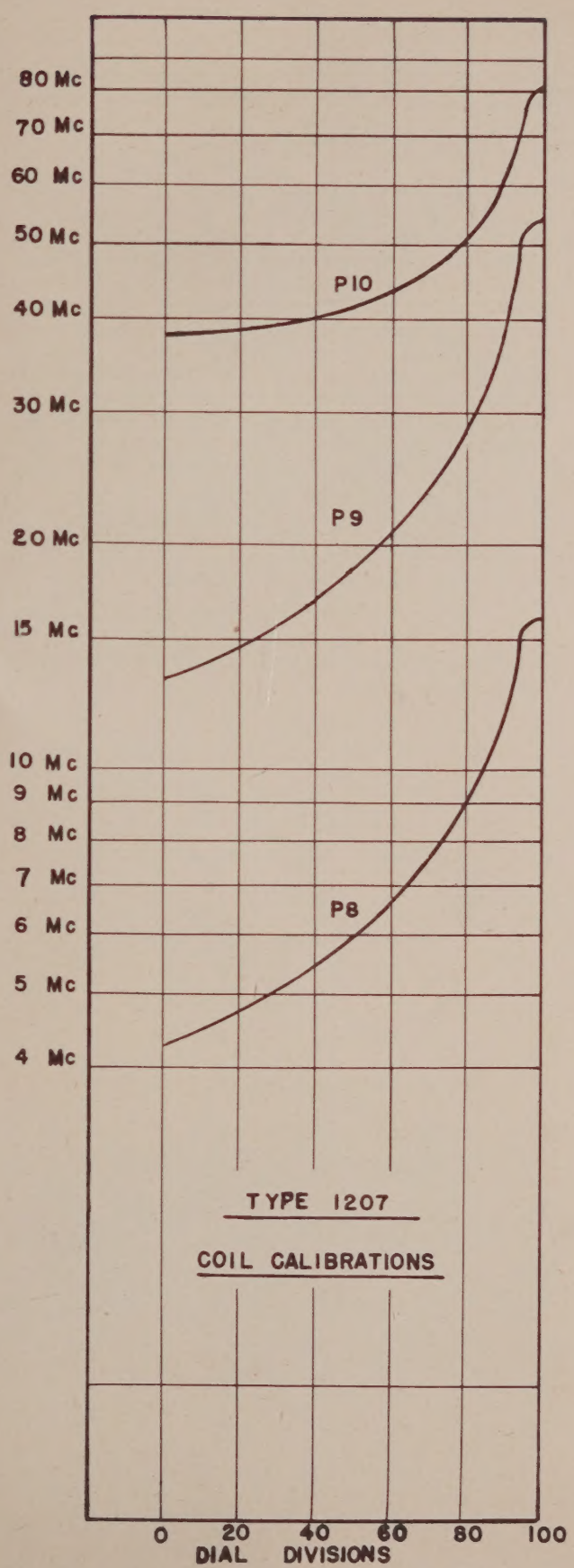
TABLE I

Coil	Frequency	Number of coil turns			Grid Capacitor	Inductance	Tuning Capacitor	Core	Coil Diameter
		Plate	Grid	Output					
1207-P1	400 c	2610	490	520	0.1 μf	1584 mh	0.1 μf	Dust	---
1207-P2	1000 c	985	234	200	0.05 μf	253 mh	0.1 μf	Dust	---
1207-P3	20000 c	200	100	40	0.005 μf	15.2 mh	0.0041 μf	Dust	---
1207-P4	70 - 180 kc	575	170	26	1000 μμf	20.6 mh	0.265 μμf	Air	1-1/4 inches
1207-P5	180 - 500 kc	180	110	16	100 μμf	3.0 mh	0.265 μμf	Air	1-1/4 inches
1207-P6	0.5 - 1.5 Mc	90	60	6	50 μμf	440 μh	0.265 μμf	Air	1-1/4 inches
1207-P7	1.5 - 5 Mc	27	20	2	35 μμf	43 μh	0.265 μμf	Air	1-1/4 inches
1207-P8	5 - 15 Mc	9	7	1	20 μμf	4.6 μh	0.265 μμf	Air	1-1/4 inches
1207-P9	15 - 50 Mc	1.4	1.9	1	20 μμf	0.4 μh	0.265 μμf	Air	1-1/4 inches
1207-P10	40 - 80 Mc	---	---	---	20 μμf	---	---	---	---

TABLE II

Coil	External Capacitance	Frequency	External Inductance	Frequency
1207-P1	1 μf	120 c	5 mh	7000 c
1207-P2	0.5 μf	400 c	2 mh	11000 c
1207-P3	0.07 μf	5000 c	1 mh	80000 c
1207-P4	0.02 μf	8 kc		
1207-P5	0.01 μf	30 kc		
1207-P6	0.002 μf	150 kc	2T 3/4 in. diameter	85 Mc
1207-P7	0.002 μf	500 kc	1T 3/4 in. diameter	100 Mc
1207-P8	0.001 μf	2 Mc	1T 3/4 in. diameter	100 Mc


6 Mc
5 Mc
4 Mc
3 Mc
2 Mc
1.5 Mc
1 Mc
900 kc
800 kc
700 kc
600 kc
500 kc
400 kc
300 kc
200 kc
150 kc
100 kc
90 kc
80 kc
70 kc
60 kc
P7
P6
P5
P4
0
20
40
60
80
100
DIAL DIVISIONS


80 Mc
70 Mc
60 Mc
50 Mc
40 Mc
30 Mc
20 Mc
15 Mc
10 Mc
9 Mc
8 Mc
7 Mc
6 Mc
5 Mc
4 Mc
P10
P9
P8
TYPE 1207
COIL CALIBRATIONS
0
20
40
60
80
100
DIAL DIVISIONS

ulation. Modulation with the other carrier frequency coils listed in Table I is not recommended.

2.4 EXTERNAL REACTANCE

The pair of jack terminals labeled EXT L-C at the rear of the instrument are in parallel with the oscillator tuned-circuit. A reactor plugged into these terminals may be used to extend the frequency range. For example, the nominal range of the Type 1207-P7 Coil is 1.5 to 5 Mc. When, however, a 0.002 μf capacitor is connected at the EXT L-C jack terminals, the resultant frequency is about 500 kc, and the frequency range of the panel dial is about 475 kc to 505 kc. Similarly, when a one-turn coil of about 3/4-inch diameter is connected at the EXT L-C jack terminals, the resultant frequency is about 100 Mc if the panel dial is set to about 100 divisions (minimum capacitance).

Table II gives an approximation of the frequency limits that may be obtained with external reactors and the various coils.

3.0 CIRCUIT

The circuit of the Type 1207-A Unit Oscillator is quite simple. The schematic of Figure 5 shows the oscillator and one of the plug-in coils using the Hartley oscillator circuit.

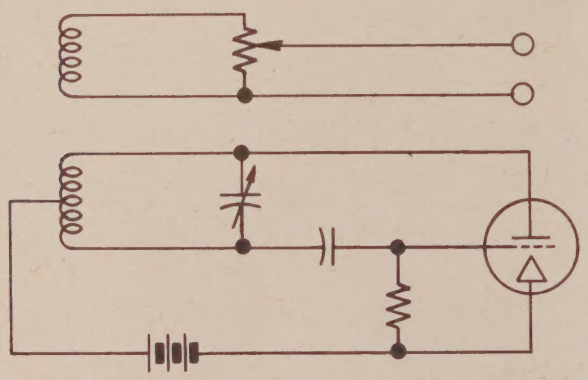


Figure 5. Elementary Oscillator Circuit

The complete wiring diagram shows MOD and EXT L-C connections. Note that a permanent grid leak resistor of 47 kilohms (R-2) serves at all frequencies. A panel meter indicates the amount of grid current. The output system is wired with low impedance coaxial cabling for better high-frequency operation. Whereas the Hartley circuit has been used in the various coils of Table I, the circuit is well adapted for operation with coils wired for tuned-plate or tuned-grid operation. As was done for the Type 1207-P10 (40 - 80 Mc) Coil (see wiring diagram), the tuning capacitor may be connected in series with a fixed capacitor to limit the maximum tuning capacitance. If found desirable, the grid resistor R-2 may be shunted by mounting the shunting resistor on the coil form from terminal #1 to terminal #5 (see Figure 4) and grounding the junction of R-1 and R-4 (at Anchor Terminal No. 3) to the chassis (see wiring diagram). Whenever circuit modifications are effected, it is well to remember that the maximum ratings for the Type 6C4 Tube when used as an oscillator are 300 volts dc from plate to cathode, 8 ma grid current, 25 ma plate current, and 5 watts plate dissipation.

SPECIFICATIONS

Frequency Range: Seven plug-in coils are available to cover the range from 70 kc to 80 Mc and a plug-in coil form, also available, may be wound to meet special requirements. Three plug-in units are listed to provide within ± 2% fixed audio frequencies at 400, 1000 and 20,000 cycles. Coils, coil forms and plug-in units must be ordered separately (see below).

Frequency Control: With the seven tunable coils, continuous frequency adjustment is provided by a variable air capacitor, having a uniform scale from 0 to 100.

The audio frequency units are inductor-capacitor combinations, and the internal variable air capacitor has little effect on the frequency. The frequency can be changed, however, by connecting a suitable capacitor or inductor to the jacks provided.

Frequency Stability: The frequency stability is adequate for most laboratory applications, except those involving highly selective tuned circuits. Variations of load impedance cause some shift in frequency.

Output Impedance: Approximately 75 ohms at full output for the coils (70 kc to 80 Mc) and 750 ohms for the tuning units (400, 1000 and 20,000 cycles). A 2000 ohm voltage divider at the output terminals provides an output control.

Output Power: At least a half watt into a matched load up to 5 Mc, and 10 milliwatts at 80 Mc.

Modulation: Jacks are provided for connecting a modulating audio source in series with oscillator plate supply. The oscillator can be amplitude modulated to 50% from 0.5 to 15 Mc. The maximum modulating frequency is 10 kc over this carrier range. The modulating audio oscillator must be capable of delivering about 115 volts to yield 50% modulation

Terminals: Jack-top binding posts with standard 3/4-inch spacing are provided for the output connection.

Power Supply: The Type 1205-A Unit Power Supply plugs directly into the oscillator.

Tube: One 6C4 is used and is supplied.

Accessories Supplied: One extra plug-in coil form; multipoint connector.

Accessories Available: Tuning units and coils are listed below.

Dimensions: 1207-A: (Width) 10 x (height) 5-7/8 x (depth) 6-5/8 inches over-all.

P1, P2 and P3: 4-1/4 x 2-1/2 x 3 inches each over-all.

P4, P5, P6, P7, P8, P9 and P10: 2-3/8 inches diameter x 3-1/2 inches over-all.

Net Weight: Coils: 5 oz. each; Tuning Units: (P1, 1-3/4 lbs) (P2. 1-1/4 lbs) (P3, 1-1/2 lbs); 1207-A: 5-1/4 lbs.

Type		Code Word	Price
1207-P1	Tuning Unit, 400 c	ARGONSAWAY	$19.50
1207-P2	Tuning Unit, 1 kc	ARGONSAFIT	17.50
1207-P3	Tuning Unit, 20 kc	ARGONSAPIS	16.50
1207-P4	Coil, 70 kc to 180 kc	ARGONSALOE	9.00
1207-P5	Coil, 180 kc to 500 kc	ARGONSABLE	9.00
1207-P6	Coil, 0.5 Mc to 1.5 Mc	ARGONSACRE	9.00
1207-P7	Coil, 1.5 Mc to 5 Mc	ARGONSANTY	9.00
1207-P8	Coil, 5 Mc to 15 Mc	ARGONSARTY	9.00
1207-P9	Coil, 15 Mc to 50 Mc	ARGONSAQUA	9.00
1207-P10	Coil, 50 Mc to 80 Mc	ARGONSAYAH	9.00
1207-P11	Coil form with case	ARGONSAXLE	6.50

SERVICE AND MAINTENANCE NOTES

1.0 GENERAL

If the unit oscillator does not deliver output voltage when measured with a reliable voltmeter with the ouput control at full clockwise position, check the d-c current as indicated by the panel meter of the Type 1205-A Unit Power Supply or check the d-c voltage from the plate of the tube (#1 in Figure 6) to the cathode (Anchor Terminal #4 in Figure 6) by means of a high-resistance d-c voltmeter. Note that the oscillator coil must be plugged in and that the MOD terminals must be closed either by the shorting plug or by a modulation transformer to afford continuity in the d-c path. The panel meter of the unit oscillator may not be relied on to indicate oscillations since, at the high frequencies particularly, the grid current may be too small to cause a meter deflection. If the tube is hot, the heater is probably properly connected.

2.0 VACUUM-TUBE DATA

2.1 With no coil plugged in, but the power supply connected:

a) The voltage between V-1 #3 and V-1 #4 (see Figure 6) must be about 6.3 volts (ac or dc, depending on the power supply).

b) No voltage should appear at any of the other terminals.

2.2 With a coil plugged in, a shorting bar at MOD, a shorting bar at EXT L-C (to prevent oscillation), and the power supply connected:

a) The plate current (as indicated by its panel meter if the Type 1205-A Unit Power Supply is used) must be about 16 ma.

b) The d-c voltage between V-1 #1 and Anchor Terminal #4 (see Figure 6) must be about 250 volts.

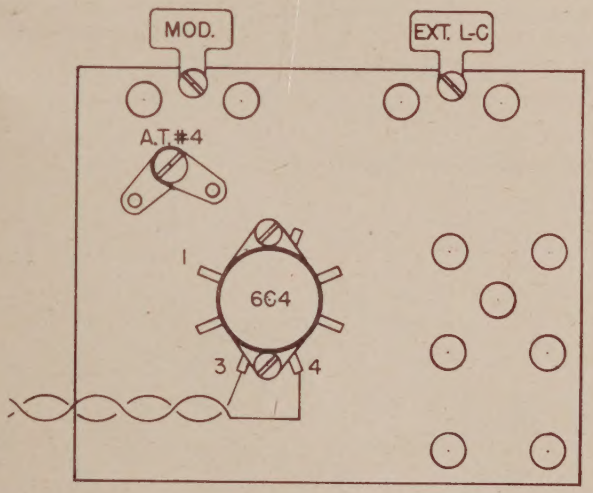
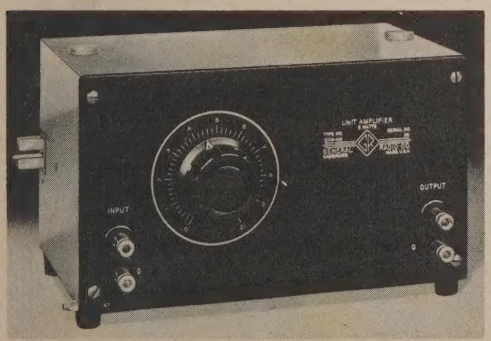
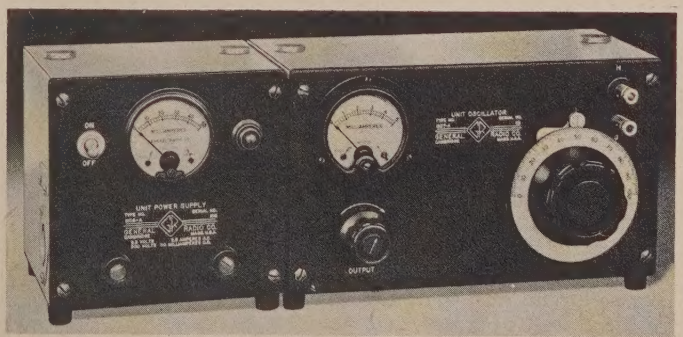


Figure 6. Oscillator Mounting Plate





(Left) Type 1206-A Unit Amplifier, and (Right) Type 1207-A Unit Oscillator connected to the Type 1205-A Unit Power Supply

R-1	=	270 Ohms	±10%	IRC BW1
*R-2	=	15 Ohms	±10%	IRC Type BW-1/2
R-3	=	100 K Ohms	±10%	IRC BT2
C-1	=	20 μf		Part of COEB-24
C-2	=	20 μf		Part of COEB-24

PL-1 = Plug CDPP-562-A

SO-1 = Socket CDMS-467-4

S-1 = Switch DPST SWT-333.NP

P-1 = Pilot Light 6.3 v. 2LAP-939

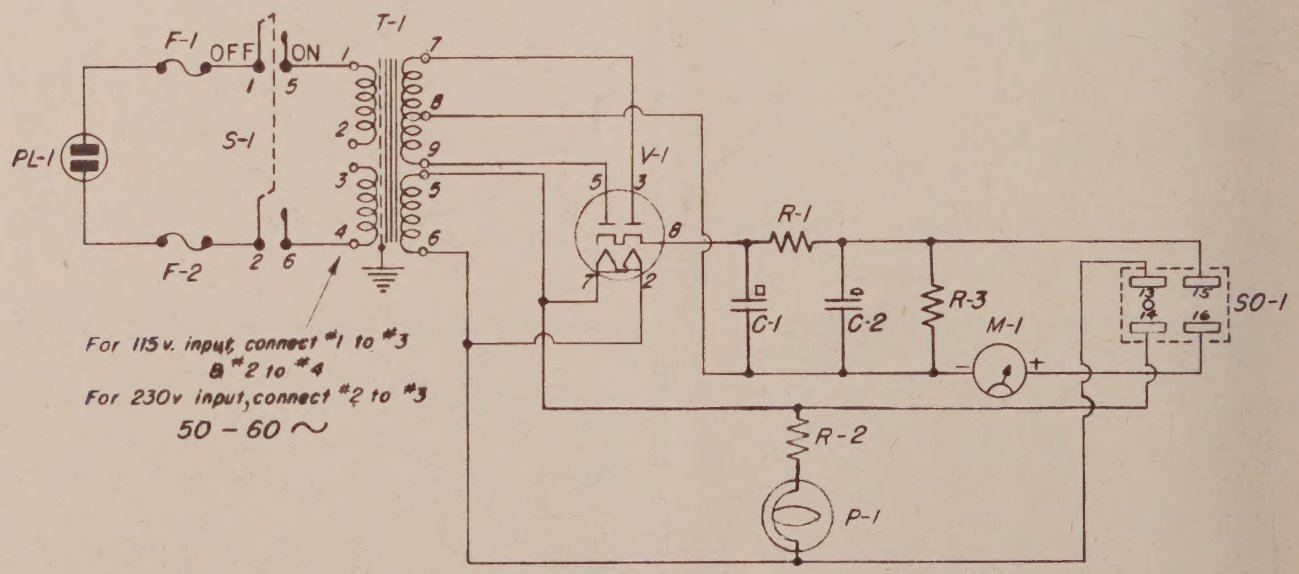
M-1 = Meter MED-21

F-1 = Fuse 0.6 amp. Slow Blow 3AG GR FUF-1 (for 115v.)
F-2 = Fuse 0.6 amp. Slow Blow 3AG GR FUF-1 (for 115v.)
F-1 = Fuse 0.3 amp. Slow Blow 3AG GR FUF-1 (for 230v.)
F-2 = Fuse 0.3 amp. Slow Blow 3AG GR FUF-1 (for 230v.)

V-1 = RCA 6X5-GT/G

T-1 = Transformer 485-447

*Part of P-1 Socket



WIRING DIAGRAM FOR TYPE 1205-A UNIT POWER SUPPLY

RESISTORS

R-1	=	200,000 Ohms		471A
R-2	=	1,000 Ohms	±10% IRC	TYPE BT-1/2
R-3	=	47,000 Ohms	±10% IRC	TYPE BT-2
R-4	=	47,000 Ohms	±10% IRC	TYPE BT-2
R-5	=	1,000 Ohms	±10% IRC	TYPE BT-1/2
R-6	=	68,000 Ohms	±10% IRC	TYPE BT-1
R-7	=	18,000 Ohms	±10% IRC	TYPE BT-2
R-8	=	10.000 Ohms	±10% IRC	TYPE BT-1
R-9	=	470,000 Ohms	±10% IRC	TYPE BT-1/2
R-10	=	390 [illegible] Ohms	±10% IRC	TYPE BW-2
R-11	=	2700 Ohms	±10% IRC	TYPE BT-1/2
R-12	=	470,000 Ohms	±10% IRC	TYPE BT-1/2

CONDENSERS

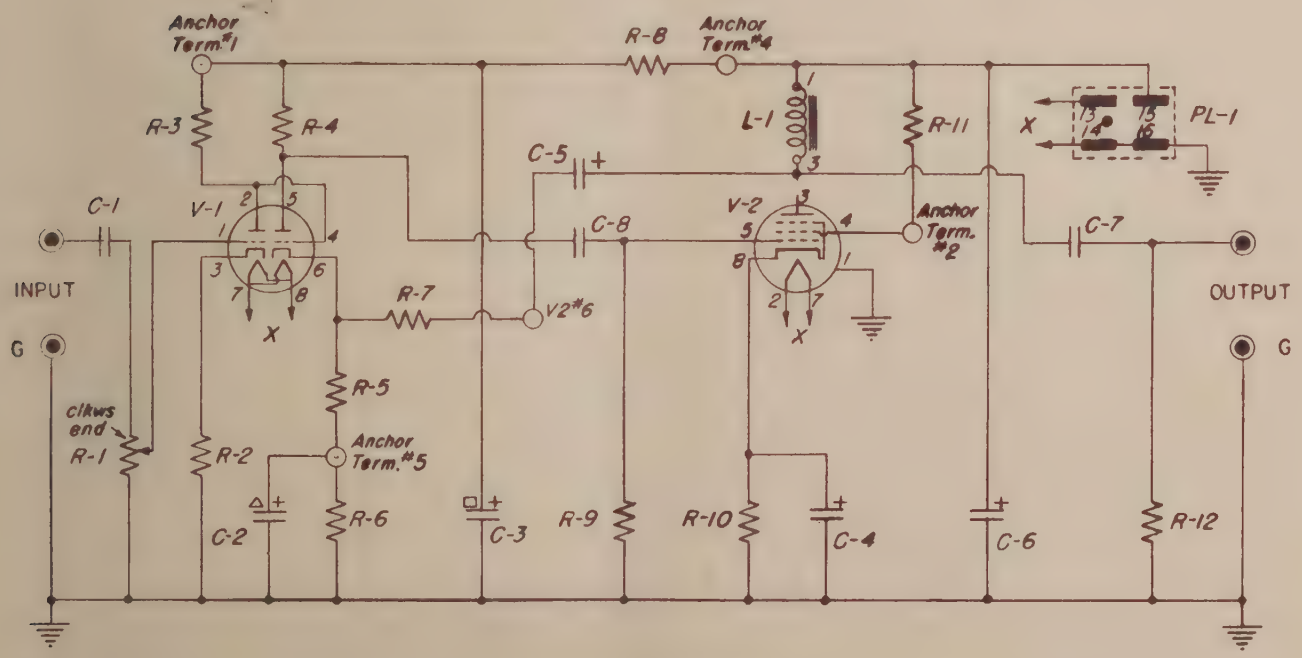
C-1	=	.05 μf	±10% CD	TYPE 4
C-2	=	50 μf		
C-3	=	30 μf		COEB-6
C-4	=	40 μf		
C-5	=	20 μf		COE-14
C-6	=	20 μf		COE-5
C-7	=	1 μf		COL-5
C-8	=	.05 μf	±10% CD	TYPE 4

TUBES

V-1	=	RCA	6SN7-GT
V-2	=	RCA	6V6-GT

MISCELLANEOUS

L-1	=	Choke	GR 485-427-2
PL-1	=	Jones Plug	CDMP-461-4



WIRING DIAGRAM FOR TYPE 1206-A UNIT AMPLIFIER

R = RESISTORS C = CONDENSERS

				TYPE
R-1	= 390 Ohms	±10%	IRC	BTA
R-2	= 47 K Ohms	±10%	IRC	BTA
R-3	= 2 K Ohms		GR	301-478
R-4	= 4300 Ohms	± 5%	IRC	BT 2
R-5	= 470 Ohms	±10%	IRC	BTS

C-1	= 40 μf	150 W. V.		COE-11
C-2	= 270 μμf		GR	847-404
C-3	= 0.001 μf	±10%		COM-21B
C-4	= 10 μf	450 W. V.		COE-17
C-5	= 0.001 μf	±10%		COM-20B

PL-1	= Plug	CDMP-461A	
M-1	= Meter	5 ma.	MED-23
V-1	= Tube	6C4	

RANGE COILS

1207-P1 (400 ~)

R-20	= 2.2 K Ohms	±10%	IRC	BTS
C-20	= 0.1 μf ±20% W. V. 600		Micamold	345
	(2. 0.05 μf+20%-10% W. V. 600 in //)			
C-21	= 0.03 μf+20%-0% W. V. 600		Micamold	345
C-22	= 0.03 μf+0%-20% W. V. 600		Micamold	345

Pair C-21 & C-22 to obtain 0.06 μf ±1%

1207-P2 (1000 ~)

R-20	= 1 K Ohm	±10%	IRC	BTS
C-20	= 0.05 μf +20%-10% W. V. 600		Micamold	345
C-21	= 0.015 μf +20%-0% W. V. 600		Micamold	342
C-22	= 0.015 μf +0%-20% W. V. 600		Micamold	342

Pair C-21 & C-22 to obtain 0.03 μf ±1%

1207-P3 (20,000 ~)

R-20	= 1 K Ohm	±10%	IRC	BTS
C-20	= 0.005 μf ±20% W. V. 600		Micamold	337
C-21	= 0.002 μf+20%-0% W. V. 600		Micamold	336
C-22	= 0.002 μf+0%-20% W. V. 600		Micamold	335

Pair C-21 & C-22 to obtain 0.004 μf ±1%

1207-P4 (70-180 Kc)

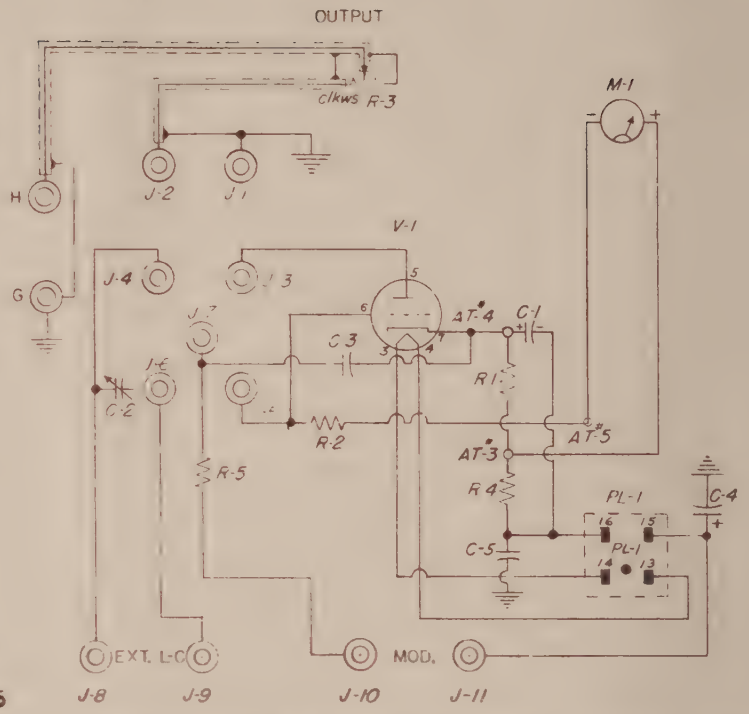
C-20	= 0.001 μf	±10%	COM-20B
R-20	= 1 K Ohm	±10%	REC-21BF

1207-P5 (180-500 Kc)

C-20	= 100 μμf	±10%	COM-20B	
R-20	= 1 K ohm	±10%	IRC	BTS

1207-P6 (.5 - 1.50 Mc)

C-20	= 50 μμf	±10%	COM-20B



WIRING DIAGRAM FOR TYPE 1207-A UNIT OSCILLATOR

1207-P7 (1.5 - 5 Mc)

C-20	= 35 μμf	±10%	COM-20B

1207-P8 (5 - 15 Mc)

C-20	= 20 μμf	±10%	COM-20B

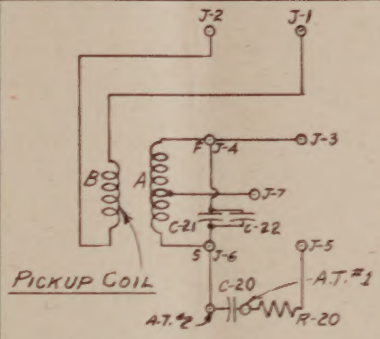
1207-P9 (15 - 50 Mc)

C-20	= 20 μμf	±10%	COM-20B

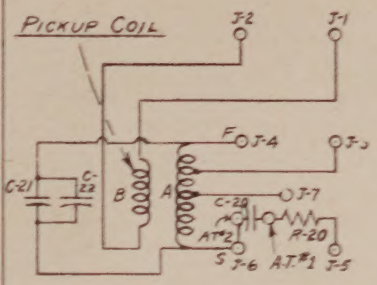
1207-P10 (40-80Mc)

C-20	= 20μμf	±10%	COM-20B
C-21	= 70μμf	±10%	ERIE N 750K*
C-22	= 100μμf	±10%	COM-20B

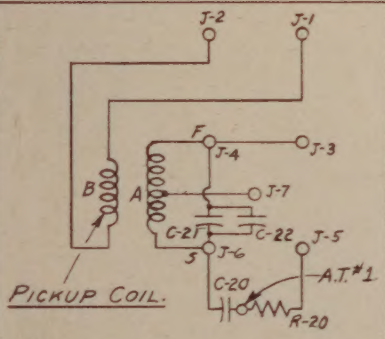
2-35 μμf in Parallel



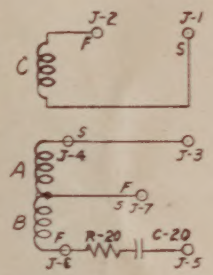
RANGE COIL 1207-P1
400Ω



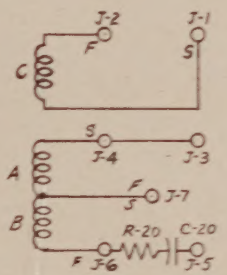
RANGE COIL 1207-P2
1000Ω



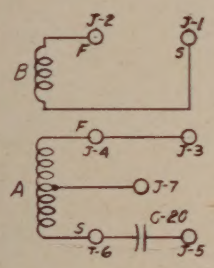
RANGE COIL 1207-P3
20000Ω



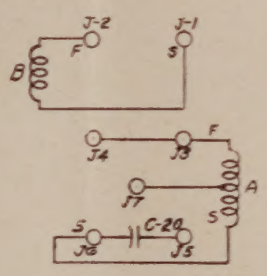
RANGE COIL 1207-P4
70-180KC



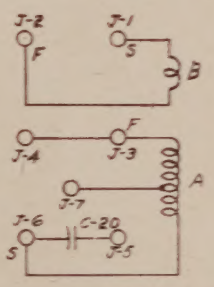
RANGE COIL 1207-P5
180-500KC



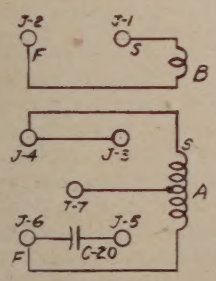
RANGE COIL 1207-P6
.5-1.5MC



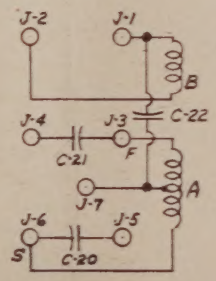
RANGE COIL 1207-P7
1.5-5MC



RANGE COIL 1207-P8
5-15MC



RANGE COIL 1207-P9
15-50MC



RANGE COIL 1207-P10
40-80MC

NOTE: TOP VIEW OF ALL COILS.